"In many cases the first point of actual safety reached by the audience is the street door into the open air, although the removal of a few walls, barriers, pay-boxes and other obstructions, now wrongly placed, would make it 50 or 60 feet nearer the seats, and thus add greatly to the convenience and safety of the visitors."

"In some theatres the attendants seem to spend the greater portion of their time in showing visitors the way."

"I should not recommend a licensing authority to permit the existence of any exit requiring a guide, and I greatly doubt whether any should be permitted which could not be adequately described in half a-dozen words."

"For the safety of an audience it would be most important that the construction of simple separate exits should be encouraged. I should prefer to see them leading into the open air; but the point is not so much where they should lead, as that they should lead by a short route to a place of safety."

"In the event of a panic from smoke or fire or any other cause, the essential conditions of safety for an audience are light and air."

"In the event of a panic, the first steps to be taken by those responsible for the safety of an audience should be to turn on all possible lights, to drop the heat-proof curtain, and to open the smoke-outlet over the stage."

Captain Shaw gives the numbers which could be safely accommodated in the several parts of each theatre, and he makes the total number for the forty-one theatres of that date 53,326.

It is to be regretted that this report cannot be given in full; but it may be hoped that the few selected extracts will supply a general indication of its purport.

Of late years a society has been formed under the title of "The British Fire Prevention Committee," the main object of which is stated to be: "To direct attention to the urgent need for increased protection of life and property from fire by the adoption of preventive measures."

This is an admirable idea, and cannot fail to effect good practical results. The society is altogether private, and has no public authority or sanction whatever, but it is none the worse for this, and it is supported by many persons of influence and practical knowledge, including the late superindenting architect of the London County Council, and will undoubtedly be the means of calling special attention to the paramount importance of *preventive* measures, while it does not in any way ignore the absolute necessity for means of dealing promptly and effectively with catastrophes which have not been prevented.

A thoroughly efficient fire brigade can certainly do much, but, however perfect the supply and distribution of water, or the mechanical appliances and personal intrepidity and skill of the firemen may be, still the safety of any great city, and more particularly of any mercantile city containing a great amount of massed property, must eventually depend on the mode in which its buildings are constructed, and the property within them classified with special reference to risk of fire.

According to a paper read by Sir R. Giffen some years ago at the Royal Statistical Society the wealth of this country was estimated by that distinguished financial authority as 11,500,000,000*l*., or eleven thousand five hundred millions sterling, and Sir John Lubbock, about the same time, stated that a sum of nearly eight thousand millions was passed into the London Clearing House in one year.

Both these amounts would now be considerably increased; indeed, a recent number of the *Saturday Review* gives the annual amount now passing through the London Clearing House at more than eleven thousand millions sterling; but how closely these figures represent the actual value of property liable to be consumed by fire it is difficult to say.

A consideration, however, of the deliberate statements made by such high authorities as these must show beyond doubt that this country contains an amount of material wealth unparalleled in history, and common sense indicates that it is a national duty to preserve it as far as possible from diminution or annihilation.

EMERITUS.

CUNEIFORM DECIPHERMENT.

Assyrian Language. Easy Lessons in the Cuneiform Inscriptions. By L. W. King. Pp. xv + 216. (London: Kegan Paul and Co., Ltd., 1901.) Price 3*s*. 6*d*. net.

MR. KING'S modest little volume on the Assyrian language will, we believe, be welcomed by many who are not Assyriologists, because it contains a brief but lucid exposition of the principles upon which the decipherment of Assyrian is based. It is now many years ago since the first labourers in the stubborn field of Assyriology produced their first fruits, and as two generations of men have grown up since that time the early labours of Rawlinson, Lassen, Hincks, and Norris have become well nigh forgotten. Mr. King's book is, as its title signifies, intended to help beginners in the study of Assyrian to master that difficult language, but it is good to note that he also means the beginner to come behind the scenes and to see, not only the results, but how the results have been arrived at. In these days we are so much accustomed to see translations of cuneiform documents in English, French and German that it is hard to realise that less than fifty years ago the phonetic values of a great number of Assyrian characters were unknown.

The first chapter deals with cuneiform writing, and shows how it came into being and developed. Though so different in appearance now, the cuneiform characters were originally of a pictorial origin, and they appear to have been invented by the Sumerians, a race of people who are generally believed to have come from a Turanian stock. Their earliest forms we now know did not consist of wedges, but of *lines*, and in the characters of *linear* Babylonian the natural objects which they were intended to represent can still be traced. In a table on p. 4 Mr. King gives us four distinct forms of fourteen characters, which date from B.C. 4500, B.C. 2500, B.C. 700, and B.C. 500 respectively; these illustrate clearly the manner in which linear picture forms become groups of wedges, and in a series of notes he shows by comparisons with Egyptian hieroglyphics that the old Sumerian characters, when they were first written down, must have been very similar to those of ancient Egyptian. The Assyrians appear to have been ignorant of this fact, and it is quite clear from their lists of archaic

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characters that they could do little more than speculate about it. Mr. King decides, and rightly, that the cuneiform system of writing was produced by the material upon which the Sumerians and Babylonians wrote. On stone it was comparatively easy to cut linear characters, or even signs in which circles and semicircles occurred; but on clay a circle or a crescent could not be made quickly with the three or four-sided stylus, and the outline of a round, or oval, object had to be represented by a series of wedges. That clay became a popular material for writing upon is proved by the fact that its use extended from Elam in the east to Syria in the west, and from Lake Van in the north to the head of the Persian Gulf in the south; the cuneiform system of writing was in use continuously in Mesopotamia for about 4500 years.

Passing next to the decipherment, in an interesting chapter there is set before us the history of the discovery of the Persepolitan inscriptions by early travellers, such as Antonio de Gouvea and Garcia de Sylva y Figueroa, Pietro della Valle and others; the first useful copy of these was made in 1765 at Persepolis by the great Niebuhr. The first successful step towards decipherment was made by Grotefend, but it was not until 1837, when the late Sir Henry Rawlinson took the matter up, that any substantial results were obtained. Mr. King gives us copies of the inscriptions from which Sir Henry recovered the names of Darius, Hystaspes, and Xerxes, and clearly explains his method step by step, and two "cuts" give us an idea of the situation of these important inscriptions on the rock at Elwend and of the famous trilingual inscription at Behistun. The narrative of the manner in which Sir Henry overcame all difficulties is extremely interesting, and the world owes almost as much to his physical as to his mental energy.

Want of space prevents us from doing more than mention the Susian and Babylonian texts at Behistun, and we therefore pass on to note that the third chapter is devoted to a description of the system in which cuneiform characters are employed as syllables, ideographs, and determinatives. It is astonishing that the Assyrians or Babylonians did not reduce their cumbrous syllabary to an alphabet, as did the Egyptians and the Persians. Following this description we have a good selection from the Assyrian syllabary, printed in the cuneiform character, with syllabic and ideographic values, &c. The latter part of Mr. King's work contains a series of interesting extracts from cuneiform texts, with transliteration and translation arranged with them either interlinearly or on the opposite page, and the last few pages of the volume are devoted to a small glossary. For a book of the size no one could expect long dissertations on abstruse points of grammar or history, it being clearly understood that for matters of this kind the advanced student must consult the larger works on Assyriology.

The little volume before us is admirably suited for the purpose for which it is intended, viz., to enable the beginner to lay hold upon the first principles of the Assyrian language, and the frequent use of cuneiform type throughout its pages will help him to become familiar with the difficult character in which the sages of Mesopotamia in all ages seem to have written down their wisdom. The cuneiform type is clear and very legible, and is, if we mistake not, copied from the fount which was specially cast for Rawlinson's "Cuneiform Inscriptions," but was at the last moment abandoned in favour of lithographic copies of texts made first by Mr. Bowler and after his death by Mr. Jankowski.

ELEMENTARY HISTOLOGY AT CAMBRIDGE.

Practical Histology. By J. N. Langley, M.A., Sc.D., F.R.S. Pp. viii + 340. (London: Macmillan and Co., Ltd., 1901.) Price 6*s.*

THIS book is an embodiment of directions for practical work in animal histology, which the author, as the result of twenty years' experience, has been led to regard as best suited to the requirements of the elementary student, with the greater part of those of the histological section of the last edition of the "Practical Physiology and Histology," by Sir M. Foster and himself—one of the best established of the famous red-cover series of didactic manuals for students, which have done so much for the practical side of modern scientific instruction. The body of the book (286 pp.) is divided into thirty-six lessons, of which the first eight are devoted to methods and the use of the microscope and microtome. Those numbering nine to thirty-five are set aside for the tissues and organs, and the thirty-sixth deals very slenderly with the main facts of cell-division. In each of these "lessons" there are first given such accounts of the organs and tissues as are necessary for manipulative purposes, and descriptions of methods of treatment likely to yield constant results in the student's hands. There follows for each lesson, under the heading "Demonstrations," a list of objects to be correlatively studied or examined; and finally (in small type) a series of "Notes," having reference to cognate and alternative objects of interest and to methods supplementary to those described in the body of the lesson, with especial reference to such as require particular skill and attention or are variable and uncertain in their action. *Apropos* of this arrangement (which is but an extension of that adopted for the volumes which preceded the present one) and the "Notes," the author points out, with commendable care, that he has been careful to avoid making manipulation too much of an end in itself; and he thereby introduces a welcome check to the tendency on the part of pure histology to lapse into a mere laborious idleness.

The book is up to date and evenly balanced, and is sure of success equal to that of its predecessors. In his acknowledgments to those who have helped him the author naïvely alludes to the "unending suggestions" for "modifications in procedure," and we have these in evidence in many of the pages of the book.

It may now more than ever be said of animal histology that the history of its progress is that of method, since, on this basis, the far-reaching generalisations of Ramon y Cajal, which but seven years ago threatened to revolutionise our conceptions of the structure and mode of action of the nervous and sensory epitheloid apparatus, are by Apathy and others being challenged. Cajal's methods receive recognition in the present work. While we could hardly expect this for Apathy's until more fully confirmed, we could desire a fuller recognition of the discovery by Dogiel of the double innervation of

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